

ABSTRACT OF THE INVENTION

The present invention is a method and system for updating location information of mobile stations. A mobile station moves from an area controlled by a first mobile services switching center (MSC) to an area controlled by a second MSC. The mobile station then registers with the second MSC, and, in response, the mobile station is added to a second MSC database. The second MSC recalculates a second MSC checksum to include the newly registered mobile station.

5 Next, the HLR sends an HLR checksum to the second MSC. The second MSC compares the HLR checksum and the second MSC checksum. If the checksums are equal, then the second MSC sends the location registration signal to the mobile station. If the checksums are unequal, then the second MSC sends an error signal to the HLR, and also sets the second MSC database equal to a previous correct database. Next,

10 the HLR sends all logged erasures to the second MSC. The second MSC then appropriately subtracts and adds each erased and newly registered mobile station to the database of the second MSC and recalculates the second MSC checksum until both checksums are equal.

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